

256100



October 31, 2003

Department of Transportation  
National Highway Traffic Safety Administration  
400 Seventh Street, SW  
Room PL-401  
Washington, DC 20590

NHTSA-03-15651-19

**NOTE: UPDATED and FINISHED COMMENTS**

This replaces the "unfinished Draft" that was sent in by our Office Staff in error on October 2. We were told you would hold the Draft from printing the Draft on the Web, but you didn't, so please take out the incomplete Draft and replace it with this Finished Document.

Re: Docket No. NHTSA 03-15651  
Federal Motor Vehicle Safety Standard #108 ... Lamps, Reflective Devices, and Associated Equipment

Listed below are my Comments on Docket No. 03-15651. Shortage of time in meeting even your second extension deadline disallows me from elaborating further, but nevertheless, I expect these comments to replace the earlier "Draft" inadvertently posted on the Web and also be re-posted in the Docket Room with all other comments on these subjects.

1. **"SUPPLEMENTARY INFORMATION STATEMENTS":**

You say, "Our interpretations include all relevant information necessary to understand the issue raised by the interpretation", and then you immediately go on to say, "Consequently, we generally will not publish the incoming request for interpretation". This second statement eludes Common Sense because the person's or Company's "Request" that started this whole process, and, of course, includes the Real Life reasoning for this Legal Interpretation Request ... is not to given to us.

Your "Published Interpretation Draft" approach to gather a variety and, hopefully, a consensus of opinions on an issue, is basically a good idea, but since you won't publish the letter that instigated the Interpretation, the background information would be incomplete and therefore, **confusion and possibly deception can crawl into your whole comment process** – a point I've been trying to make to NHTSA Legal Council for 30 years.

You also say in your Introduction paragraphs you'll publish on the Internet all the Comments on these two proposed Interpretations, which could total a hundred pages or more. So why can't you publish the original letter that instigated this whole process?

I have in my files many, many instances where NHTSA has distorted or outright changed the intent of my Interpretation Request to suit their antiquated "status quo" way of thinking. Bottom line ... **everyone who you ask to spend their valuable time on to comment on your "Proposed Drafts" should, at least, be given the Original Request to read.**

2. **"PRACTICAL" and "REPRESENTING", ETC. DEFINED BY WHOM?**

The words like "**PRACTICAL**" and "**REPRESENTING**" used in the subject of designating exact mounting locations for Original and Replacement (Aftermarket) Lights and Reflectors – brings up the question ... who is going to determine what expressions, such as "**AS FAR APART AS PRACTICAL**", "**AS HIGH AS PRACTICAL**", "**REPRESENTING EXTREME WIDTH**" and "**REPRESENTING OVERALL WIDTH**", really means when used in NHTSA Regulations? Certainly NHTSA Lawyers will not define these terms as they have intentionally avoided hundreds of Legal Interpretations over the past 20+ years on this issue using obvious "Legal back talk" that is literally laughable! ... Samples on request!

**Who is to say** that a reflector or clearance light located anywhere in the outermost quadrant of the rear of an auto or "Big Rig" isn't located **"as far apart as practical"** and/or **"representing the overall width"**? Look around in everyday traffic and you'll see thousands of unchallenged (by NHTSA), yet obvious to common sense, violations of these mandated requirements.

Anyone can go through the past 25 years of NHTSA's Legal Interpretations and see the lack of responsibility NHTSA has shown on many of the issues addressed. Meanwhile, NHTSA's Legal Council infers in these two Proposed Interpretations, that they have, indeed, clearly defined such multi-meaning words like "Practical" and "Representing" so everyone involved clearly understands the spacing and locations required of them ... **that "ain't the truth of the matter"**. In fact, I can't recall even one time when NHTSA's Legal Council has attempted to interpret a "Practical" or "Representing" type question, except to "repeat" both obscure Terms as if everyone already knows what they meant by these obscure expressions.

What's "Practical" to one person, is not necessarily practical to another, and these kinds of Non Objective Terms certainly represents a series of Loop Holes NHTSA has ignored for years because they don't have the people or they won't take the time to invent Objective Regulations as all "good law" demands of them.

The "Huge" amount of confusion these Non Objective Terms generate results in great expense to the Public, not only because of the now required superfluous personnel at NHTSA that "try" and answer again and again the same repetitive, unanswerable questions, but also because this generates extreme cost to Lighting Manufacturers and State Agencies because of the confusion and non standardization NHTSA allows to propagate, resulting in even more costs, ultimately passed on to the Public.

### 3. CONSIDER THE FACTS BELOW AS THEY APPLY TO YOUR PROPOSED LEGAL INTERPRETATION:

**FACT:** NHTSA uses incomplete Standards for Bulbs and has No Standards for Test Voltages for any of the lights mandated for Vehicles ... except for headlights. So, how can either of these Proposals make sense, if there are no set (or incomplete) Standards to start with?

**FACT:** It's bad enough that NHTSA only requires Chromaticity Tests before and after the 3-Year UV Outdoor Testing and very minor (actually inadequate) Heat Testing of lenses, light bodies and bulb holding components, but things are made even worse because NHTSA rarely enforces any of these minimal Mandated Requirements, and for the most part, acts as if they don't exist, and act as if longevity means nothing to Public safety or to unnecessary expenses put on them.

Indeed today, one can see millions of mandated Vehicle Lights and Reflectors everywhere on our roadways that are Turning Clear, have Dim Lenses or have Prematurely Failed. Additionally, NHTSA totally ignores such things as protecting the Public from shortened life spans of Bulbs, not to mention Reflector Plating and Color Failure. It's no wonder the U.S.A. has been inundated with millions of poor quality, non working, Imported lights and reflectors in the past 5 years.

**FACT:** The question from "ITL" mentioned in Draft 2 pertaining to NHTSA "carte blanc" allowing of any LED array to replace originally qualifying incandescent bulbs, represents the biggest dereliction of duty, by both NHTSA Rulemaking and Enforcement Departments, that I have witnessed in the past 30 years of collecting the many non-sensical and contradicting Legal Interpretations which have been actually "OK'd" by these Departments.

The Mandated "Effective Luminous Lens Area" requirement that should be applied to these LED arrays as well as to all incandescent lights, has also been ignored by both the Rulemaking and Compliance Departments for at least 7 years (so far), thereby allowing literally hundreds of various designed LED Lights to be manufactured (in the millions) without regard to this Effective Luminous Area Regulation, while "using the reasoning" that this is OK because NHTSA says, "LEDs are experimental", an irresponsible allowance that I can't find permitted anywhere in Federal Laws.

Meanwhile, incandescent light manufacturers are required, by threat of Recall, to totally honor the **Effective Luminous Lens Area "Mandated" Requirement**. Below is the definition from current Federal Law covering "Effective Luminous Area" and below this, is the current SAE Definition - **NEITHER is being enforced by NHTSA - Why?**

Effective projected luminous lens area means that area of the projection on a plane perpendicular to the lamp axis of that portion of the light-emitting surface that directs light to the photometric test pattern, and does not include mounting hole bosses, reflex reflector area, beads or rims that may glow or produce small areas of increased intensity as a result of uncontrolled light from small areas ( $\backslash 1/2 \backslash$  deg.

3.3.5 EFFECTIVE PROJECTED LUMINOUS AREA—"Effective Projected Luminous Area" is that area of the light-emitting surface projected on a plane at right angles to the axis of a lamp, excluding reflex reflectors (but including congruent reflexes), which is not obstructed by opaque objects such as mounting screws, mounting rings, bezel or trim, or similar ornamental feature areas. Areas of optical or other configurations, for example, molded optical rings or markings, shall be considered part of the total "effective projected luminous area". The axis of the lamp corresponds to the H-V axis used for photometric requirements.

**FACT:** Bulbs, LED arrays and any mandated lamp marketed today as an Exact Replacement for an original OEM supplied light, should be supplied with information assuring NHTSA, and the Public, that this Replacement has been tested to the "Original" Bulb, LED or Lamp Standard, that is, if a Standard exists.

Manufacturers of a certain replacement Bulb, LED array or Lamp should be able to prove that when this particular Replacement is used in a particular, already Lab qualified tested, lighting device, the Public must be assured the Replacement also complies to all FMVSS #108 Requirements for Photometrics, Chromaticity, Effective Luminous Lens Area, 3-Year UV Weatherability, Water, Dust and Heat, etc.

**FACT:** For many years, Legal Council for NHTSA has made the argument that Replacement Bulbs must be identical to the original. The only problem is - the "Original Bulb", or the Test Voltage used to qualify them in the device that was Laboratory qualified - are not standardized.

Further, NHTSA does not "require" the use of bulbs that can be easily found and "economically dispersed" to the Public so that the bulb needed can be simply found and changed in any place in the U.S. at any time, night or day, another abandonment of NHTSA's responsibility put on them by the 1966 Safety Act.

**FACT:** If NHTSA were to require that the manufacturer of the original lamp put the replacement bulb "number" and Test Voltage on or near the bulb holding socket, this would be a partial answer to the problem if, at the same time, bulbs and their running voltages were standardized. Today, virtually any bulb design using "any" test voltage can be used by the original lamp manufacturer, thus leaving the Public (and Safety) in another confusing and costly quagmire.

S5.1.1.16 A lamp designed to use a type of bulb that has not been assigned a mean spherical candlepower rating by its manufacturer and is not listed in SAE Standard J573d, Lamp Bulbs and Sealed Units, December 1968, shall meet the applicable requirements of this standard when used with any bulb of the type specified by the lamp manufacturer, operated at the bulb's design voltage. A lamp that contains a sealed-in bulb shall meet these requirements with the bulb operated at the bulb's design voltage.

**FACT:** The above S5.1.1.16 Regulation allows the encapsulation ("sealed in") of bulbs, where, for instance, a common #1157\* bulb can be put into a Sealed Capsule where it is a nearly impossible to find a Replacement Capsule when needed, which puts an intolerable expense on the Public and is a measurable detriment to Public safety. Why is this allowed to continue?

\*One of the few SAE (but not Federally) Standardized bulbs

4. **TWO LAMP REPLACEMENTS:**

Your Interpretation proposal that **would outlaw** the two (side by side) "Replacement" Lamps that are intended to replace the 2 Original Vehicle (side by side) Lamps on the rear of the mentioned Honda Civic, where ... in this particular case ... the Reflex Reflector has been relocated from one lamp to the other, should not be outlawed based on the assumption that the Lights could be independently changed and therefore not be used in unison, but you should simply insist (using an "Objective" regulation) that the Replacement Manufacturer can only sell these Lights in "Sets", while also clearly requiring that the end user is to replace them as a pair and no other way.

5. **"3 PIECE" LAMP REPLACEMENTS:**

If a Replacement scheme must include 3 pieces; that is, 2 side by side lights newly designed lights as discussed above and a separate "**loose reflector**" like the example you cited, then again, the people involved in the Distribution of this 3 piece product to the Public must properly inform everyone concerned of the 3 pieces' "specifically required" mounting locations and additionally, explain the "as far apart as practical" Regulation to them, if need be.

**Both the 2 Lamp and 3-piece Replacement must be allowed by NHTSA;** that is, if both arrangements completely comply to all aspects of FMVSS #108 covering Chromaticity, Photometrics, "Minimum Luminous Area", 3-Year Lens and Body Material, Weatherability, Dust, Rain, etc. Tests, as well as meeting all the "as far apart as practical", and "height", and "direction pointing" Requirements depicted in FMVSS #108.

You simply can't designate New Designs as "Illegal" if they Comply to all your Regulations.

In summary, I would like to say it feels good to be permitted to finally publicly express some of my frustrations with NHTSA's antiquated regulations.

I sincerely hope someone of authority at NHTSA finally sees the need to **establish concise Bulb and Test Voltage Standards** as well as **upgrade the obvlous "Subjective" Regulations to "Objective" ones**, thereby following the Original Intent of the 1966 Vehicle Safety Act.

Further, I hope the "Enforcement" people of NHTSA start enforcing and "Recalling" all the violations of the **"Effective Projected Luminous Lens Area"** mandated requirement, which is now, totally out of hand.

Respectfully,



Dennis G. Moore  
President  
Sierra Products Inc.